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REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed March 3, 2004. In the Action, the Examiner notes that claims 1-21 are pending, of which claims 1-21 stand rejected. In view of the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, the Applicants believe that all of these claims are now in allowable form.

REJECTION OF CLAIMS UNDER 35 U.S.C. §103(a)

Claims 1-4, 7-10 and 13-21

The Examiner has rejected claims 1-4, 7-10, and 13-21 under 35 U.S.C. §103(a) as being unpatentable over Katz et al. (U.S. Patent No. 6,343,086, hereinafter "Katz") in view of U.S. Patent No. 6,426,943 to Spinney et al. (hereinafter "Spinney"). The rejection is respectfully traversed.

In general, Katz discloses a system for connecting telephony equipment to computer network equipment. Specifically, Katz discloses a method and apparatus for the connection of telephony networks and computer networks on modules that are controlled by the host computer processor, but which do not require the data streams to flow through the host computer processing unit or associated memory.

In general, Spinney discloses "an application-level data communication switching system and process for automatic detection of and quality of service adjustment for bulk data transfers." (Summary, Lines 51-54).

The Examiner's attention is directed to the fact that Katz and Spinney (either singly or in any permissible combination) fail to teach or suggest a packet telephony appliance that implements an event-based mechanism for intra-appliance communication.

Specifically, Applicants' claim 1 recites:

A packet telephony appliance, comprising:

- network processor that integrates networking and DSP functions, the network processor having a serial input port, a serial output port and a network interface;

- an output device coupled to the serial output port;

- an input device coupled to the serial input port; and

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a network coupled to the network interface,
wherein the packet telephony appliance implements a unified buffering
mechanism that provides zero-copy data movement, and
wherein the packet telephony appliance implements an event-based
mechanism for intra-appliance communication.
[emphasis added]

In general, the Applicants' invention discloses a packet telephony appliance having a network processor that integrates networking and DSP functions to provide a low cost and efficient solution in building a networked appliance.

The Applicants' invention includes the limitation of "wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication". This event-based mechanism for intra-appliance communication is a communication mechanism that allows appliance components to share information in a flexible and efficient manner. The event-based mechanism delivers events posted by a module on its sending ports to one or more interested modules on their respective receiving ports.

Independent claim 1 recites limitations not taught, shown, or suggested in Katz. In particular, and as conceded by the Examiner, Katz fails to teach or disclose the limitation "wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication." Nevertheless, the Examiner then asserts that Queue Manager (QM) 30 as taught in the Spinney reference is identical to the event-based mechanism for intra-appliance communication, as taught in Applicants' claim 1. The Applicants respectfully disagree.

As taught in Spinney, the QM 30 element referenced by the Examiner is "a collection of gates and state machines designed to rapidly execute the placing of data cells on appropriate queues...and to apply queue policies..." (Column 6, Lines-17-21) The Queue Manager 30 essentially assigns network traffic data cells to appropriate queues. In fact, Queue Manager 30 is serving the role of a scheduler that determines whether the packet belongs to a known flow, i.e., depositing data cells into different queues. However, once queued, the stored packets are operated on by the same processing component. Thus, the QM 30 does not, however, provide a mechanism for communication between the components of the Spinney arrangement.

The assigning of network traffic data cells to appropriate queues, as taught in Spinney, is simply not the same as a mechanism capable of delivering intra-system

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events from one module to one or more other interested modules, as taught in Applicants' claim 1. The assigning of network traffic data cells to queues in no way facilitates communication between modules within the system traversed by those data cells. Furthermore, nowhere in Spinney is there any teaching, showing or suggestion of an event-based mechanism for intra-appliance communication.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 U.S.P.Q. 416, 420 (Fed. Cir. 1986) (emphasis added). Katz and Spinney both fail to teach or suggest the Applicants' invention as a whole.

As previously noted by the Examiner, the Katz reference fails to disclose the limitation "wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication." Spinney does not bridge the substantial gap as between Katz and the Applicants' invention. Therefore, the Applicants submit that the combined references fail to teach the Applicants' invention as a whole.

Furthermore, for prior art references to be combined to render obvious a subsequent invention under 35 U.S.C. §103, there must be something in the prior art as a whole which suggests the desirability, and thus the obviousness, of making the combination. Uniroyal v. Rudkin-Wiley, 5 U.S.P.Q. 2d 1434, 1438 (Fed. Cir. 1988). Moreover, the mere fact that a prior structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 23 U.S.P.Q. 2d 1780, 1783 (Fed. Cir. 1992); In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

In an apparatus such as the system disclosed in the Spinney arrangement, the techniques and methodologies of the subject invention (as well as the techniques and methodologies of the Katz arrangement) tend to be unnecessary since the problems being addressed are simply not present in the network switch of Spinney.

The Katz arrangement is directed to a computer having attached modules that are controlled by the host computer processor, but which do not require network data streams to flow through the host computer processing unit or its associated memory.

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The Spinney arrangement, on the other hand, is directed to a network switch that utilizes extensive processing and memory components in order to schedule bulk transfers of data through a network switch without disrupting other data flow through the switch.

Thus, since the Spinney arrangement (which utilizes extensive memory and processing resources) negates the problems solved by the Katz arrangement (limiting the impact of the transmission of data streams on the processor and memory of a computer connected to a network), there would be no reason or motivation to incorporate into one arrangement the techniques of both Katz and Spinney. As such, Applicants submit that independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Thus, the Applicants respectfully request that the rejection be withdrawn.

The Applicants also submit that independent claims 13 and 21 are directed to methods according to the apparatus of claim 1, and contain substantially the same limitations as claim 1. Specifically, claims 13 and 21 both include the limitation of an event-based mechanism for intra-appliance communication. As such, for the reasons described above with respect to claim 1, the Applicants submit that independent claims 13 and 21 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

Furthermore, claims 2-4 and 7-10 depend, either directly or indirectly, from independent claim 1 and recite additional features thereof, and claims 14-20 depend, either directly or indirectly, from independent claim 13 and recite additional features thereof. As such, and at least for the same reasons as discussed above, the Applicants submit that these dependent claims also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

Claims 5-6 and 11-12

The Examiner has rejected claims 5-6 and 11-12 under 35 U.S.C. §103(a) as being unpatentable over Katz in view of Spinney and further in view of U.S. Patent No. 5,726,984 to Kubler et al. (hereinafter "Kubler"). The rejection is respectfully traversed.

As described above, Katz and Spinney both fail to teach, show or suggest the Applicants' invention as taught in claim 1. Specifically, Katz and Spinney both fail to

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teach, show, or suggest the limitation "wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication."

In general, Kubler discloses "[a] packet-based, hierarchical communication system, arranged in a spanning tree configuration . . . in which wired and wireless communication networks exhibiting substantially different characteristics are employed in an overall scheme to link portable or mobile computing devices."
(Abstract, Lines 1-6)

More specifically, Kubler discloses numerous embodiments directed to a communication networks (comprising various combinations of mobile network devices, stationary network devices, wireless networks, hardwired networks and telephones) which operate to support voice and data communication within a premises. Kubler further discloses the routing of voice and data packets between the devices/networks, analog/digital conversion, polling protocols, and routing protocols.

As described above with respect to claim 1, the Applicants' invention discloses a packet telephony appliance having a network processor that integrates networking and DSP functions to provide a low cost and efficient solution in building a networked appliance. The packet telephony appliance implements a unified buffering mechanism that provides zero-copy data movement, and implements an event-based mechanism for intra-appliance communication.

The Applicants' invention includes the limitation of "wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication". This event-based mechanism for intra-appliance communication is a communication mechanism that allows appliance components to share information in a flexible and efficient manner. The event-based mechanism delivers events posted by a module on its sending ports to one or more interested modules on their respective receiving ports.

As discussed above, the teachings of Kubler are generally directed to the transfer of voice and data between network devices, not to communication between internal modules within a network device. Nowhere in Kubler is there any teaching, showing, or suggestion of intra-appliance communication, much less an event-based mechanism for intra-appliance communication.

As such, Applicants submit that even in further view of Kubler, independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is

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patentable thereunder. Since claims 5-6 and 11-12 depend from claim 1 and recite additional features thereof, it is respectfully submitted that claims 5-6 and 11-12 are also fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

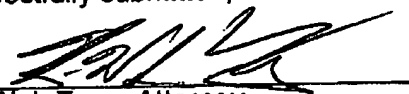
CONCLUSION

The Applicants submit that claims 1-21 are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

7/6/04


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